#### INTERNATIONAL SEARCH REPORT

Ints ional Application No PCT/GB2004/003077

CLASSIFICATION OF SUBJECT MATTER C 7 C08J9/20 C08J CO8J9/14 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 C08J Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Category Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X EP 0 987 293 A (SHELL INT RESEARCH) 1,3-1122 March 2000 (2000-03-22) 15,18-26 cited in the application Υ claims 6,8,9,12 12,14,17 column 9, line 1 - line 43; example 1 column 10, line 19 - line 39; example 4 column 2, line 53 - line 55 χ FR 2 780 406 A (BP CHEM INT LTD) 1-6,9-1131 December 1999 (1999-12-31) claims 1,16 page 19, line 1 - line 6 page 19; table 1 Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the investigation. "A" document defining the general state of the art which is not considered to be of particular relevance invention 'E' earlier document but published on or after the International "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority clalm(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled document published prior to the international filing date but later than the priority date claimed \*&\* document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 22 October 2004 04/11/2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentiaan 2 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Õhm, M

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Inter and Application No
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Category °	ation) DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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(	WO 96/15182 A (SHELL INT RESEARCH) 23 May 1996 (1996-05-23) claims 1,3,7,8 page 5, line 5 - page 6, line 19; examples 1-4 page 3, line 18 - line 19 page 4, line 13 - line 14 page 7; table 1	1-4,6,7, 9-11 12,14,17
<b>A</b>	WO 02/46284 A (NOVA CHEMICALS INC) 13 June 2002 (2002-06-13) cited in the application claims 1,4,6-8,11,18,26-28	1-20
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national application No. PCT/GB2004/003077

## INTERNATIONAL SEARCH REPORT

This international Search Report has not been established in respect of certain claims under Article 17/(2)(a) for the following reasons:  1. Claims Nos.: because they relate to subject matter not required to be scorched by this Authority, namely:  2. Claims Nos.: because they relate to parts of the international Application that do not comply with the prescribed requirements to such an extent that no meaningful international Search can be carried out, specifically:  3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).  Box III Observations where unity of invention is tacking (Continuation of item 3 of first sheet)  This international Searching Authority found multiple inventions in this international application, as follows:  See additional search fees were limely paid by the applicant, this international Search Report covers all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional received additional search fees were limely paid by the applicant, this international Search Report covers only those claims for which fees were limely paid by the applicant, this international Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:    No required additional search fees were limely paid by the applicant. Consequently, this international Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:   No protest accompanied by the applicant's protest.	Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
because they relate to subject matter not required to be searched by this Authority, namely:  2.	This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  3.	
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because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  3.	
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)  This International Searching Authority found multiple inventions in this international application, as follows:  see additional sheet  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  The additional search fees were accompanied by the applicant's protest.	because they relate to parts of the International Application that do not comply with the prescribed requirements to such
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#### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11, 26 (partly)

Expandable polystyrene beads comprising 100 parts of a polymer of styrene, 2.2 to less than 4.0 parts of a blowing agent and 0.01 to 0.4 parts of a plasticising agent.

2. claims: 12-25, 26 (partly)

Use of pre-expanded polystyrene beads having a bulk density of from 40 to 190 g/l for manufacturing medium-density expanded molded polystyrene objects.

# INTERNATIONAL SEARCH REPORT

information on patent family members

Interview and Application No.
PCT7GB2004/003077

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		Publication date	Patent family member(s)			Publication date	
EP	0987293	Α	22-03-2000	EP	0987293 A	\1	22-03-2000
				AU.	761299 B		05-06-2003
				AU	6194299 A		03-04-2000
				BR	9913763 A		05-06-2001
				CA	2341273 A		23-03-2000
				CN	1111559 B		18-06-2003
				WO	0015703 A		23-03-2000
				EP	1114090 A		11-07-2001
				HU	0103666 A	2	28-01-2002
				JP	2002524638 T		06÷08-2002
				NO	20011321 A		00 05 2001
			•	PL	346696 A		25-02-2002
			•	US	6538042 B		25-03-2003
FR	2780406	Α	31-12-1999	FR	2780406 A	1	31-12-1999
•				BG	103533 A		31-08-2001
				CA	2276314 A		29-12-1999
				EP	0969037 A		05-01-2000
				· HU ·	9902213 A	2	28-07-2000
				NO	993199 A		30-12-1999
				SK	88299 A	.3	10-05-2001
				TR	9901463 A	2	21-01-2000
· 				US	6271272 B	1	07-08-2001
WO	9615182	Α.	23-05-1996	AU	4117596 A		06-06-1996
				WO	9615182 A		23-05-1996
							23-03-1990
WO	0246284	Α	13-06-2002	ΑU	3082202 A		18-06-2002
				BR	. 0115923 A		20-01-2004
				CA	2430615 A		13-06-2002
				CN	1478120 T		25-02-2004
				EP	1352022 A		15-10-2003
				HU	0303866 A		01-03-2004
				NO	20032500 A		03-06-2003
				WO	0246284 A		13-06-2002
				US	2002117769 A	1 '	29-08-2002